



AviSeqTM
Genomic DX

Aviseq Barcode Screen 1-96

REF: AVG901 96 TESTS



USER GUIDE

AVG901_IFU_Rev00_DEC23

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1. PRODUCT APPLICATIONS

Aviseq Barcode Screen 1-96 must be used in combination with Avicenna kits. The intended use of those kits is the generation of a library suitable for NGS analysis with Ion Torrent and Nanopore sequencing instruments.

2. KITS CONTENTS

Aviseq Barcode Screen 1-96 contain ready-to-use reagents for the insertion of the barcode specific for Ion Torrent and Nanopore instruments.

Barcode Screen 1-96 (Cod. AVG901)	
PLATE	QUANTITY
Barcode Screen 1-96	1

Table 1: Content of the Aviseq Barcode Screen 1-96 Set 96.

3. STORAGE AND STABILITY

All reagents provided with our kits are ready to use and should be stored at -20°C, as indicated on the plate and on the external jar/container.

The kit, intact and properly stored, will maintain high quality performance capacity until the expiry date indicated. When the reagents are thawed, they must be kept on ice throughout the process.

4. REQUIRED MATERIAL NOT INCLUDED

4.1 Generic Material

- Computer with constantly updated and guaranteed secure internet connection.
- Micropipettes calibrated and periodically verified 0.2-2 µl, 2-20 µl, 20-200 µl or 100-1000 µl and filter tips.
- Vortex.
- Disposable Gloves without powder.
- Thermal cycler calibrated and periodically verified.
- Tubes and Caps or 96-wells plate, as needed, DNase and RNase free.
- Nuclease-free water.
- 1,5 ml tube magnetic support or 96-wells plate compatible magnetic support.
- Fresh 80% ethanol.
- Ion Torrent sequencers calibrated and periodically verified.

4.2 Specific Material

The material listed below has been used and validated by Aviseq:

- QubitTM 2.0 Fluorometer (Invitrogen Cod. Q32866) or QubitTM 3.0 Fluorometer (Invitrogen Cod. Q33216) or QubitTM 4.0 Fluorometer (Invitrogen Cod. Q33226) calibrated and periodically verified.
- QubitTM assay tubes (Invitrogen Cod. Q32856).
- QubitTM dsDNA HS Assay Kit (Invitrogen, cod. Q32851).

QUALITATIVE ANALYSIS OF DNA (Optional)

- Agilent 2100 Bioanalyzer system with DNA reagent kit calibrated and periodically verified.

5. IMPORTANT NOTES AND SAFETY INFORMATION

The user is required to apply the following provisions.

- The kit is for professional use, it must be used by trained professionals in molecular biology.
- Do not use if package damaged
- Biological samples and all reagents should be used in properly equipped rooms, clean and clear of potential contaminants. We suggest cleaning working areas frequently using a solution containing sodium hypochlorite 1-5%.
- Always use safety equipment such as laboratory coat, gloves and safety goggles during all steps described in the protocol.
- Check the risks and safety procedures associated with instruments, electricity, chemicals and other resources applied to the use of the device.
- To avoid contamination of reagents we recommend using DNase/RNase free tubes, filter tips and to pay particular attention to keep all instruments clean and free of contaminants.
- We suggest preparing a unidirectional workflow from the initial phase of DNA isolation following the PCR preparation phase, amplification and post-amplification phases in order to keep working areas separated for the different phases of the procedure using for each phase dedicated laboratory coats, micropipettes, tubes and filter tips.
- Used reagents and biological samples must be wasted according to legal procedures.










6. PROTOCOL

For the operative procedure please refer to the manual provided with the Avicenna kits.

7. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SUGGESTION
Absence of bands on agarose gel after electrophoresis	Wrong PCR thermal profile	Verify the PCR thermal profile and calibration then repeat the PCR reaction
	Mistakes in master mix and/or ligation mix preparation	Verify PCR mix components and repeat the PCR reaction
	Degraded reagents	Verify expiry date and storing conditions of the products
	Presence of inhibitors	Verify concentration and quality of DNA extracted using a spectrophotometer. If necessary, repeat DNA extraction.
	Low amount of DNA	Verify concentration and quality of DNA extracted using a spectrophotometer. If necessary, repeat DNA extraction.
Presence of fragments with low molecular weight	Primer residues and / or degradation of adapters, primers dimers, etc.	Eliminate low molecular weight fragments by purification with Beads

8. SYMBOLS

	For Reash		Catalogue number
	Expiration date		Batch code
	Consult instruction for use (IFU)		Temperature limitation
	Manufacturer		Sufficient for n. tests
	Do not use if package damaged		